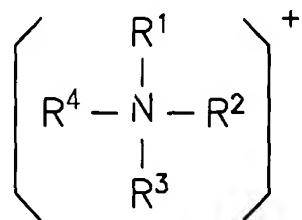


ABSTRACT OF DISCLOSURE

An electrolyte in a lithium secondary battery includes an alkyl ammonium salt having a cation of the following Formula 1, a lithium salt, and an organic solvent:

Formula 1



wherein R¹ to R⁴ are independently a C₁ to C₆ alkyl, a C₂ to C₆ alkenyl, or substituents thereof. The lithium secondary battery has improved cycle life, high rate characteristics, and a high energy density due to an increase of the average discharge voltage at a high rate.